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SUMMARIES OF ARTICLES.

[ABBREVIATIONS. — *Am. J. Ps.* = *American Journal of Psychology*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Int. J. E.* = *International Journal of Ethics*; *Phil. Mon.* = *Philosophische Monatshefte*; *Phil. Stud.* = *Philosophische Studien*; *Rev. Ph.* = *Revue Philosophique*; *R. I. d. Fil.* = *Rivista Italiana di Filosofia*; *V. f. w. Ph.* = *Vierteljahrschrift für wissenschaftliche Philosophie*; *Z. f. Ph.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Ps. u. Phys. d. Sinn.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*; *Phil. Jahr.* = *Philosophisches Jahrbuch*. — Other titles are self-explanatory.]

PSYCHOLOGICAL.

Das musikalische Gedächtniss. R. WALLASCHEK. V. f. Mus.-Wiss., Heft 2, 1892. — pp. 204-251.

Memory is a function of organic matter, and can be evolutionally studied. The origin of imitation lies in the reflex (*cf.* Wernicke). Memory is a restrained imitatory reflex (Bain). But in the technical sense memory implies consciousness (Ladd).

In the sphere of musical memory the distinction between imitatory reflex and memory proper is important but very difficult. 'Music' in the animal kingdom the author regards as a feeling-reflex in production and reproduction. So with the lower human races (the astonishing musical memory of the Hottentots is merely imitatory) and with idiots. It is otherwise with such a memory as that of Mozart, as is, indeed, experimentally shown by investigations into the musical sense of idiots (Wildermuth-Stetten). At the same time, the imitatory reflex is the foundation of all later musical development.

If memory is a reflex, restrained by other sense-impressions, it is intelligible that in consequence of the inhibition of certain nervous paths or centres the traces of all previous impressions are obliterated, and a single new impression (or uninfluenced trace of an impression), is reflexly effective, being unrestrained by any active combination. Hence the 'cropping up' of memories (*cf.* Forel). This inhibition can arise in a variety of ways: it explains the isolated exhibition of musical power. It is to be noted that musical expression is not bound up with a definite hemisphere or portion of the brain. As

regards continuance of such exhibition we must remember that "the Ego can take the reins, at any time, when a series of ideas is in motion." Some pathological cases of extraordinary musical achievement are explicable on the assumption that a reflex is released in sleep. Inclination to sing or speak in rhythm has been observed in somnambules, hypnotic subjects, and in cases of nervous fever (Perty: all women; cf. the fact that female idiots are more musical than male). Music plays a part in the therapeutics of insanity.

In connection with extraordinary memorial achievements, we may note that a reflex-activity often gives us normally better results than conscious effort. When performance has become automatic by usage, the portions of the brain which correspond to its conscious execution are out of practice.

Somnambulism shows us at times a combination of reflex muscular memory with (apparently) partial consciousness. (Jessen; cf. Wal-laschek, Kieser.) When persons hear only 'through the medium of' other persons, we have probably to do with a complete control of their memory; the patients are tone-deaf, but able to follow music when their attention is directed to it. Echolalia may represent simply a reversion to a primitive condition (cf. Wilkes for normal echolalia; Jagor for morbid mania of imitation). The exaltation of phonetic faculty is not only observable in cases of insanity, hypnosis and hysteria; alcohol, tea, coffee and tobacco are impressed into the same service.

The achievements of memory are greatest in the opium or hashish *crapula* (G. Martius, Urquhart, Braid, Preyer). We have only to consider two effects of it; the increase of auditory sensibility and the emotional processes set up (Moreau, Rohlfs). In hashish-intoxication the subject is eminently suggestible (Schrenk-Notzing). The facts prove the associative emotional influence of music, an influence dependent on the personality of the listener.

Similarly in hypnosis: the patient is 'a kind of phonograph' (Berger; cf. Richer, Braid, Heidenhain, etc). The sense of hearing is the last to disappear,—a fact turned to account in hypnotic therapeutics. The musical achievements of hypnotized subjects are to be ascribed, again, to the imitatory reflex, aroused by the complete isolation for a definite impression, and by concentration on it. Music has a very great associative influence on somnambules and cataleptic persons. (Cf. Moll.) Auditory hallucinations can be called up at will. Indeed, musical suggestion is analogous to the other suggestions. There is nothing in hypnosis which contradicts

our other experience, though its historical connection with mysticism is intelligible. It affords a valuable means to the study of the associative working of music.

In many respects like the mental conditions spoken of is that accompanying dreams. It is stated that we do not, or do not often, dream in terms of auditory sensation. The author cannot confirm this view. It is hard to decide whether we dream in sound or in music; but the question is not of great importance. Perfect musical hallucinations occur (Macnish). Perhaps unique is a case of the connection of visual images with music. We may compare the connection of colors and tones. An association of touch-sensations with tones is known. (*Cf.*, on the whole subject, Gurney, Myers and Podmore. We need not follow these authors as regards telepathic explanation.)

How, and to what extent, do we memorize music? As a general rule, the manner corresponds to the musical structure itself. The memory for harmony is different from that of melody (*cf.* the memory of the Hottentot and that of Mozart). The will to remember melodies facilitates their remembrance; in the author's case, such willing means the calling to aid of auxiliary ideas. Bain's explanation of memorizing is not valid: rhythm is the principal thing. Whether memory is always dependent on the intensity of the sense impression is not easy to decide. More probable is Stumpf's view, even in the face of the fact that the imitatory reflex is conditioned by such intensity. Musical memory is better than other memories; yet the impressions are not stronger. For intensity we substitute "mental working over." *Cf.* reaction-time; the auditory impression is easier associated than others.

Absolute tone-memory is a curious phenomenon. It is not proportional to the relative tone-memory of the same individual. The latter facilitates the appreciation of melody, absolute memory that of harmony. This points to the correlation of a better ear with absolute memory, apart from the question of musical talent. Relative tone-memory is often an indirect tone-memory, which has arisen by association with the time-sense. Relative tone-memory suffices for singing from printed music; the singer may even be disturbed by absolute memory. The latter is not necessary for perfect musical enjoyment. Wagner had no very developed absolute memory (*Die Meistersinger*); Mozart would seem to have possessed it.

Motor ideas form a great assistance to absolute memory of a tone-pitch. The part played by laryngeal sensations and ideas of move-

ment in the estimation of an interval differs in different persons, and in the same at different times. What is the process in the representation of the playing of a melody? Henle said that the melodies ran their course "in an abstract way"; and this is true in some instances. The author's experience would rather say that they have a conglomerate clang-color (*cf.* Stumpf and Stricker). Taine speaks for a close resemblance of ideational image to original sensation. This may be a survival from the primitive condition.

All art took its origin from imitation. Hence the imitative talent of artists. The genius of the artist gives us normally what the ordinary man gives, if at all, only as the result of total arrest of his mentality in other directions (hypnosis, ecstasy, catalepsy, intoxication). The psychical law of artistic creation and of insanity is one and the same.

E. B. T.

Ueber die Grundformen der Vorstellungsverbindung. (Schluss.)

M. OFFNER. Phil. Mon., XXVIII, 9 u. 10, pp. 513-547.

Association by contrast presupposes association by similarity, and at first appears as a secondary process. But on the return of a contrast-presentation, the chief weight inclines to the side of pure contiguous association or word association. The theory which explains contrast-association on the analogy of after images, is untenable from the fact that associations by contrast, always infrequent owing to the relatively few really contrasting presentations, do not appear in the flow of ideas where conditions are most favorable to reaction against a one-sided strain of attention, and do appear where, according to the theory, there is least reason to expect them. In the reproduction of the whole by a part, or *vice versa*, the psychophysical process is quite the same as in so-called 'association by similarity,' so that there is no need of involving a peculiar form as does Höffding. The difference lies within the relations of content in the separate presentations, and the union of the latter is rightly ascribed by Wundt to outer association. This outer association suffices as well for the explanation of associative subsumption, which Wundt reckons as a case of inner association. The consciousness that a particular presentation resembles countless others is built up through association by similarity. Finally, the memory-image blends after the manner of a composite photograph, or gains universality by the concentration of attention upon representative elements, or completely retires behind a mere symbol. The cumulative, representa-

tive, or symbolic concept is then reproduced after the manner of so-called 'association by similarity' through the elements which it has in common with the particular presentation momentarily present. In a similar manner the concept recalls the subsumed particulars; only here, as in the reproduction of a part through the whole, the associative course is ambiguously determined. This does not, however, justify Münsterberg's idea that such a connection ought to be assimilated to association by succession. Association by succession occurs when an impression due to external stimulus joins itself to other impressions or memory-pictures which immediately followed it on a former occurrence. This is attributed to "associative habit" by Wundt, who gives for it the same physiological explanation as for association by simultaneity. Münsterberg first emphasized the noteworthy difference between the two forms, but decided that association by simultaneity remained the only psychophysically explicable connection. To meet the question as to how motion in one centre joins itself to the already vanished excitation of a different centre, he assumed constant ocular or auricular sensations, or a constant visual image, as the common bond between successive disparate presentations. But this explanation, as well as the one which introduces connected complexes of reflex movements, only puts off the difficulty, and leaves still unexplained the fact that the order of reproduction is the same as that of perception. Exception must also be taken to Münsterberg's negative conclusion from the experiments undertaken to test the occurrence of successive association when constant impressions are artificially excluded. The number of orderly reproductions is too great to be ascribed to chance, and Münsterberg himself has carefully shut out the possibility of any constant cause other than pure successive association. A study of the countless forms of association leads to the conclusion that there is no essential difference between inner and outer association, but defeats the tendency to unify so far as to leave unreduced at least two basal, though closely related, forms of association, simultaneity and immediate succession.

LOUISE HANNUM.

La beauté plastique. L. COUTURAT. Rev. Ph., XVIII, I,
pp. 53-72.

In his recent article on "Organic Beauty" Naville holds that representations both of material phenomena and of psychic states

and events play an æsthetic role. This is not the case. Strictly speaking, neither material objects nor states of consciousness by themselves can possess beauty, which resides rather in the manifestation of states of consciousness by material phenomena. No sensation as such can be called beautiful, but merely agreeable or disagreeable. Even Naville's examples contain a formal element which overpasses pure sensation. Nor is there moral beauty, if we would preserve the sense of the word 'beauty.' Further, it would be better to distinguish by name literary, musical, and plastic beauty, and apply the term 'beauty' in its technical sense to plastic beauty alone. We must distinguish between the phenomena that Naville classes together as "expression." Natural bodily movements are "expressive" of mental states, language is "significant" of thought, and all the indirect manifestations and products of mental activity are "suggestive" of the latter. The beauty of an object for us does not consist in the sentiments which it suggests, nor in the ideas which it may signify, but in its expression properly speaking, in so far as this is pleasing to the spectator. Not all agreeable expression, however, is beautiful. Uncouth manifestations of joy, for instance, may be pleasing, because they appeal to our human sympathy, but they are clearly not beautiful. Beauty, then, is a kind of agreeable expression. This is the first and most important distinction to make. There are two kinds of expression, each of which may be agreeable or disagreeable: (1) the transitory expression of feeling by the motions of the body, and (2) the permanent expression of consciousness by the body itself. It is for the latter, when its contemplation procures a certain pleasure, that we reserve the name 'beauty,' though of course there is no hard and fast line between the transient and the permanent. It is such expression that we find in the greatest works of Greek sculpture.

E. A.

The Evolution of Consciousness. C. L. MORGAN. Natural Science, Nov. 1892, pp. 659-663.

We can express in two ways a fundamental fact of experience. We say (1) an object in consciousness exists; (2) there is a consciousness of the object. Physical science deals with the former, more objective side of the experience. ('Objective' has two senses. More narrowly, it applies to all that belongs to the "primitive perceptual object-in-consciousness"; this is its signification in physical science: in a wider sense, the word 'object' denotes what

is in the focus of the mind's eye.) Psychology deals with the consciousness-of-the-object. The two sides of experience are inseparably connected.

Metaphysics states, on the one hand, that the Object exists independently of consciousness; on the other, that mind-stuff has this independent existence. Such abstractions should not have it predicated of them that they are "real," but rather that they are "autic" (Stoney).

Science has only to deal with, and separately to deal with, the consciousness-of-the-object, and the object-in-consciousness. In this paper, we are not attempting to get behind phenomena. As a working hypothesis we assume that consciousness is associated in "me" and "my like" with certain complex modes of energy in "my brain or in some part of me." It does not here matter whether this leads to dualism or monism. Evolutionarily, neural modes of energy have been developed from infra-neural modes, and these from the simpler modes of energy of inorganic nature. So states of consciousness have been evolved from infra-conscious states, and these stretch back to the simple infra-consciousness of inorganic nature.

It seems that of the three hypotheses possible — special creation of consciousness, evolution of consciousness from energy, evolution of consciousness from infra-consciousness — we have to accept the third. The only logical alternative is special creation.

E. B. T.

La composition musicale et les lois generales de la psychologie.

F. PAULHAN. Rev. Ph., XVII, 12, pp. 590-602.

Music exemplifies two psychological laws: those of systematic association and systematic inhibition. Our music is characterized by tonality; the tonica predominates, the *morceau* begins and ends (as a rule) with its perfect chord. The aspect and significance of a succession of tones are entirely different, according to the mind's previous preparation for them; and the same holds of tones simultaneously given, whether the chords be complete or incomplete. Dissonance provokes desire for the perfect chord. The influence of tonality, again, can be exerted in the way that the natural significance of chords is inhibited.

One of the ends of melody and harmony is, then, to preserve tonality; hence most of their rules. If, on the other hand, a tone is to be changed by modulation, (1) equivocal combinations or suc-

cessions are employed to effect the transition to another tone : *cf.* association by partial identity. Here two things are necessary : the fading of the memory of the first tone; the self-insistence of the second. (2) Where the two tones are widely distant from one another, intermediate chords are employed. The mental phenomena of modulation are the same as before. (Example from Lohengrin.) (3) Similar, again, is the mechanism of enharmonic modulation (Lohengrin).

An analogous theory could be applied to cadences (Lohengrin) and to dissonant chords. In both cases our musical sense follows the laws of systematic association and inhibition ; the hearing of certain chords leads irresistibly to the expectation of certain others, and dissonances must be resolved upon a consonant chord. The final question, the 'why' of harmony, still remains ; its physiological causes are not yet definitively known.

Music appears thus as living, organic ; "une sorte d'esprit idéal que nous substituons au nôtre." In the musical drama, music is concretised to express the facts of real life, these facts being in their turn idealized by it. The application is a legitimate one.

E. B. T.

ETHICAL.

Die sittliche Frage eine sociale Frage. F. STAUDINGER. Phil. Mon., XXIX, 1, pp. 30-53.

Philosophy, like all science, is not an end in itself, but a means to an end. Its immediate aim of widening and deepening knowledge must subordinate itself to the universal aim of the harmonious perfection of man. A philosophy which neglects this practical, ideal aim becomes a mere affair of the schools. At the present time the divergence between the scientific and popular thought seems to be giving place again more and more to an approximation. On the one hand, the consciousness of the people is freeing itself from the stupid, uncritical acceptance of the dogmatic philosophy of the church, while on the other hand scientific philosophy is basing itself on the natural sciences and becoming more and more practical. On the theoretical side it is, to be sure, the materialistic philosophy which exercises a great influence on our contemporaries among both the laboring classes and the so-called higher classes. Nor, indeed, should the philosopher regret this, however one-sided and inadequate he may regard materialism. For the materialistic mode of thought

offers a ground on which a complete scientific view of the world, when the conditions of social life permit, may take root far easier and more securely than on the ground of any dogma whatever. For dogma rests on authority and accordingly has nothing to do with reasons, while materialism has, at least, the good will to listen to reasons. On the practical side, too, a development is taking place under our eyes quite analogous to the growth of materialism on the theoretical side. The notion that the moral imperatives were given by authority from above is losing ground constantly. We are in the midst of a transition from the Christian idea that God has resolved to create for men a kingdom of peace and love in the hereafter, to the socialists' idea that men in their own strength may establish a kingdom of justice for all on human ground. Socialism says that the present social order is unjust, not founded on principles of reason, and that it is the laboring class which at no distant date is to raise humanity, materially, spiritually, and morally up to a new and more perfect state. Ethics has two parts: it must first determine whether the given social order is itself good, and then, whether the individual is good. The kind of economic order is of fundamental importance for the moral condition of individuals. The mass of men can become good only in an order which bears within itself the assurance of an education to the good. Here lies the ethical significance of socialism. The social order can be moral and morally binding only when it is itself instituted according to the principles of an order for all. Only on a moral order can human morality be built. The aim of the social movement is to establish such a system of legal and moral principles of society as to secure to all men more equal social conditions of existence, culture, and morality than is the case to-day. The first of all moral tasks is not to preach improvement to individuals, but to help create the conditions of a moral order, a ground in which the seeds of such preaching may take root. The social question is the fundamental question of morals. F. C. FRENCH.

Ethics as a Political Science. ARTHUR T. HADLEY. Yale Rev., I, 3, pp. 301-315.

The two great political theories, based respectively on absolute authority and absolute individual liberty, have been conciliated by the application of Darwinian methods. Liberty and law are held to be compatible, and to have the same source and justification in the necessity of preserving the social organism. In ethics there is a

parallel opposition between the necessity of authority and the right of private judgment. The application of the same methods brings about the solution, that authority and liberty are only justified so far as they preserve the race. Authority is necessary to prevent moral anarchy, liberty to prevent unlimited authority rendering progress impossible. Making survival a test of right substitutes a practical standard for a metaphysical one, and unites the logical vantage ground of authority with the practical vantage ground of liberty. Little use has been made of this test of survival, because ethics in our century has been separated from law and sociology. We can show how this separation arose by tracing the development of law. The justice of savage tribes is based on a body of tribal customs, — neither law nor morals in any sense of the words, — maintained by an organized terrorism, each member of the community being ready to punish transgression. First arose a set of officials to enforce certain customs, then a definite procedure, and finally a definite statement of the customs and rights themselves. Law thus developed as the political authorities came to be entrusted with enforcing certain parts of morals. The residuum in its turn developed and altered in character. The necessity for ethic legal force grew less and less, and when the sovereign could not compel obedience, stress began to be laid on religious and ethical sanction. The scope of human sentiment widened considerably when its precepts were enforced by conscience instead of physical compulsion. As moral authority develops, the part played by fear grows less, that by reason greater. The separation of moral from legal conceptions led to a confusion between the exponent and the source of law. Hence the notion that the court can say anything and it will be law; that conscience can say anything and it will be right. Neither court nor conscience can strike out a new line of decisions apart from the moral sense and traditions of the community. Behind the court, the legislature, the church and conscience, there is something larger and wider which develops and finds embodiment in national law and character.

DAVID IRONS.

METAPHYSICAL AND EPISTEMOLOGICAL.

Die moderne Energetik in ihrer Bedeutung für die Erkenntnis-kritik. K. LASSWITZ. Phil. Mon., XXIX, 1, pp. 1-30.

It is the aim of this essay to analyze the fundamental concepts of the modern theory of energy and to show their epistemological sig-

nificance as theory of matter. For the theory of energy the content of experience is given as a state which consists in a distribution of qualities in space and a change of the same in time. The general character of every content of experience always appears as a combination in which one can reflect upon either the moment of unity or the moment of multiplicity. As moment of unity there is found in every object the form of determination according to law, as moment of multiplicity the coördination and succession of space and time. Objects of nature are states of space and time determined according to law, and only of these does the theory of energy treat. The forms of determination according to law which as determining unities are constitutive of objects, are called categories. Two sorts of categories, quantity and quality, are discovered according as we distinguish the states of things with respect to multiplicity or with respect to the unities which condition through their combination the states themselves. By quantity and quality objects of nature, *i.e.*, distribution and change of states in space and time, are fully determinable. Each object is represented as a magnitude under the form of unity, while the plurality of unities of the same sort gives a higher unity so that a whole arises. The essence of the whole consists in the fact that it contains all the unities of its parts, no more and no less. Hence the three categories of quantity: Unity, Plurality, Totality. Every object in Physics may be represented as a numerical distribution of magnitudes in space and time. The concept of energy, however, involves beyond this the problem of the representation of qualities as magnitudes. The theory of energy rests on the possibility of representing change as magnitude. Corresponding to the quantitative categories of Unity, Plurality and Totality are the quantitative categories of Identity, Diversity and Variability which are involved in the concept of change.

While these categories of quantity and quality suffice to define objects of nature, they do not determine whether these objects really exist for experience. It is essential to actual objects of experience that they have independent persistence in space and time, that they exercise effect upon one another, and that in these effects our own bodies be included. The law conditioning these characteristics is the concept of relation. We must therefore expect to find in the concept of energy the categories of relation. The physical object is distinguished from the same object as merely thought by the possession of energy. The first characteristic property of energy is that amid all changes it persists. Hence the principle of the conservation

of energy which is seen to be nothing different from Kant's "principle of the persistence of substance." The concept of energy rests throughout on the category of Substantiality. Energy fulfils all the demands which the concept of substance in the philosophical sense involves. Substance in the philosophical sense is in modern physics not mass but energy. The theory of energy teaches that change takes place only when there is a difference of intensity of energy present, and that every form of energy strives to pass over from positions of greater intensity to positions of less intensity. This law of intensity is only the special form which the law of causality takes on in the theory of energy. The categories of Substance and Cause do not suffice to determine the complex (Gefüge) of different forms of energy in the physical world. The real connection of things involves the further concept of System (Kant's community, reciprocity). Just as, in the categories of quantity, Unity and Plurality find their completion in Totality, and, in the qualitative categories, Ideality and Diversity come to a higher unity in Variability, so, in the categories of relation, System is the higher unity of reality in which Substantiality and Causality are contained as fundamentally constitutive. Thus the analysis of the modern concept of energy shows that the same categories are involved here that Kant derived from the forms of the judgment. The significance of the concept of energy for the theory of matter will be critically examined in a second paper.

F. C. FRENCH.

Das Ich und die Aussenwelt. Zweiter Artikel. Von OSWALD KÜLPE. Phil. Stud., VII, 3, pp. 311-341.

On the nearest plane, the opposition between ego and world, subject and object, 'within me' and 'without me' is visual—spatial, and as such not to be resolved. But the epistemological problem is concerned only with the fact that the same experience is at once referred to the ego and localized without the ego. This apparent contradiction disappears when an experience is referred to the subject in so far as it is conceived to be dependent on one's body, to the object so far as it is found to depend on other objects in space. As every object of perception is determined in these two ways, there arise two closed series of relations, whose complete separation still remains only an ideal. A further separation of ego and non-ego occurs with the recognition of the body as itself an object of presentation. The class of experiences which are never objectified in the sense

defined above, becomes the bearer of the ego-concept, and all further subjectifying arises in relation to this. The opposition between 'within me' and 'without me' has, then, a double significance, participation in a merely subjectified experience being opposed, on the one hand, to the visual-spatial field and, on the other, to dependence on the outer world. And these relations, like those first distinguished, involve no contradiction. The same world of facts belongs, then, alike to psychology and to natural science, the first dealing with experience in its relation to the body, the second with experience in its dependence on the space-world outside the body. But experience itself is neither physical nor psychical, neither objective nor subjective; for the qualities on which these distinctions rest are not immanent within it. The opposition of ego and non-ego is, as Fichte taught, practical rather than theoretical.

LOUISE HANNUM.

HISTORICAL.

Das natürliche System der Geisteswissenschaften im 17. Jahrhundert. III. W. DILTHEY. *Ar. f. G. Ph.*, VI, 1, pp. 60-127.

Catholic theology based itself on tradition. In the 16th century the attempt was therefore made to discover the *true* doctrines of the church. This necessitated an examination of traditions, which in turn led to historical criticism. At the same time arose the science of hermeneutics, a discipline which formed the starting point of modern mental sciences. It is a fruit of Protestantism. Catholicism tried to weaken the foundation of the new religion by revealing the critical uncertainty of Scripture. On Protestantism, therefore, falls the task of interpretation. Flacius represents the new movement in this connection. The Bible is the norm of faith, he asserts. It has, however, been misunderstood, partly on account of our ignorance of languages, partly on account of the false methods pursued in studying it. As auxiliaries to the new science, Flacius uses rhetoric and the exegetical theories existing since the time of Origen. He offers certain *remedia* and *regulae cognoscendi sacras literas*. The Bible is a continuous whole. Every passage must be interpreted with reference to this unity. The tendency of a particular writing is examined, which procedure furnishes a clue to the understanding of its entire substance. From such a study it becomes apparent that the individual parts have a common pur-

pose. This theory forms the basis of our modern philologico-historical methods. Flacius's work manifests the influences of both Protestant and Humanistic thought. Richard Simon is the Catholic opponent of Flacius. The work of Franz rests on the same general presuppositions as that of Flacius, but differs from the latter in its methods. He gets at the meaning of a passage by connecting it with what immediately precedes and follows. The chief significance of hermeneutics lies in the fact that the fundamental methods of mental sciences are here for the first time examined.—Simultaneously with the preceding movement began rationalistic theology, which followed the path marked out by Erasmus. The latter affirmed the freedom and dignity of man, and distinguished the teaching of Christ from the rest of the Bible. This direction of thought pointed to a formal and moral criticism of dogmas. Schools representing the movement sprang up in Southern France and Italy, and formed the beginning of Socinianism. Protestant Christianity had to justify its claims before the Humanistic, historico-critical, formal and moral methods of the age. The truth of Scripture was based on the historico-critical certainty of the important events of the New Testament, of which the resurrection is the chief. Grotius is the best representative of this theology. Man strives after happiness, he says, which Christianity promises him. The spread of this religion and the resurrection are miracles which prove the truth of Christianity.—The theory of accommodation (the divine author of the Bible adapted himself to historical conditions), the first form of historical interpretation, meets us in this school. The criticism of dogmas by Arminians and Socinians shows that human reason has reached its majority. Laurentius Valla really gave Socinianism its first impetus. Man is here to act, he claims, the will forms his real essence on which reason depends. Valla influenced Erasmus. The Socinians attack as irrational and unjust the most important dogmas of the church,—original sin, eternal damnation, vicarious atonement. Servetus antagonized the notion of the trinity as a logical impossibility. Jean Bodin, however, united the transcendental theology with this moral rationalism in his *Heptaplomeres*. He preaches tolerance and expresses his dislike of theological controversies. All religions are regarded by him as akin to each other, they are the daughters of a common mother, natural religion, of which the consciousness of freedom, of immortality, and of retribution forms the content. Bodin despairs of finding the criterion of the true religion. A

criterion is impossible, our judgment must be suspended. But no decision is essential to our salvation. — The passage from such a conception of natural religion to philosophy is easy. The natural system was supported by theology. It rested on the doctrine of universal notions, innate ideas, which presuppositions made it possible to construct a rational theology, jurisprudence, and theory of the state. We must note the influence of Stoicism on this system. Roman conceptions are revived by Petrarca, Salutato, Aretinus, Aeneas Sylvius, Laurentius Valla, Agricola, and Erasmus. Zwingli's *De Providentia* betrays the influence of Stoicism. Dilthey examines the different chapters of this work, and compares them with the views of Plato, Cicero, Seneca, and Plinius. A sentence like the following expresses a Stoical thought: *Providentia est perpetuum et immutabile rerum universarum regium et administratio*. All things spring from one source and this source is God. From this notion of immanence or panentheism Zwingli deduces his determinism. He also sets up a religious universalism. God reveals himself in all religions and in all men. God himself is not subject to law; his nature and *ingenium* are to him what law is to us.

F. T.